

# **Air Management Study Group Quarterly Meeting**

Madison  
November 1, 2018

# Hiring Update

**Gail Good**

Air Program Director

# **Proposed Guidance and Rules Legislative Update**

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief

**David Bizot**

Air Quality Planning and Standards Section Chief

# Proposed DNR Guidance

DNR Guidance in Drafting Phase	Description	Target Date
Updates to Air Dispersion Modeling Guidelines	Updates addressing: <ul style="list-style-type: none"> <li>• MERPs</li> <li>• AERMOD updates</li> <li>• SIL Guidance</li> </ul>	On hold until EPA finalizes
DNR Guidance in Public Comment	Description	Date Posted
None		
Finalized DNR Guidance	Location	Final Date
None		

# Proposed EPA Rules and Guidance

Proposed EPA rule/guidance	Docket	Comments due
Guidance on Interpreting “Adjacent” for Source Determinations	<a href="https://www.epa.gov/nsr/forms/interpreting-adjacent-source-determinations">https://www.epa.gov/nsr/forms/interpreting-adjacent-source-determinations</a>	10/05/2018
Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks	<a href="#">EPA-HQ-OAR-2017-0283</a>	10/26/2018
Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units: Emission Guideline Implementing Regulations; New Source Review Program (Affordable Clean Energy Rule)	<a href="#">EPA-HQ-OAR-2017-0355</a>	10/30/2018
Emissions Monitoring Provisions in State Implementation Plans Required Under the NOx SIP Call	<a href="#">EPA-HQ-OAR-2018-0595</a>	10/29/2018

# Finalized EPA Rules and Guidance

Finalized EPA rule/guidance	Link	Date finalized
Final SIP approval of Wisconsin 2012 PM2.5 NAAQS	<a href="https://www.epa.gov/region-5/epa-r05-oar-2018-0008">EPA-R05-OAR-2018-0008</a>	10/17/2018
Final SIP approval of 2017 revisions to NR 400 and 406	<a href="https://www.epa.gov/region-5/epa-r05-oar-2017-0280">EPA-R05-OAR-2017-0280</a>	10/9/2018

# Draft and Final Legislation

Draft legislation	Link
N/A – legislature not in session	

Final legislation	Link
N/A – legislature not in session	

# **Emission Reduction Credit (ERC) Factsheet**

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief

**David Bizot**

Air Quality Planning and Standards Section Chief



# ERC Factsheet

- A fact sheet addressing some frequently asked questions about emission reduction credits (ERCs) is now available on the DNR website: <https://dnr.wi.gov/files/PDF/pubs/am/AM567.pdf>
- Covers general information as well as questions about establishing, maintaining and using ERCs.
- ERC contacts:
  - Kristin Hart (ERC establishment, use and trading)
  - Maria Hill (ERC reporting/emissions inventory)
  - David Bizot (SIP requirements and existing ERCs)

# Air Monitoring Update

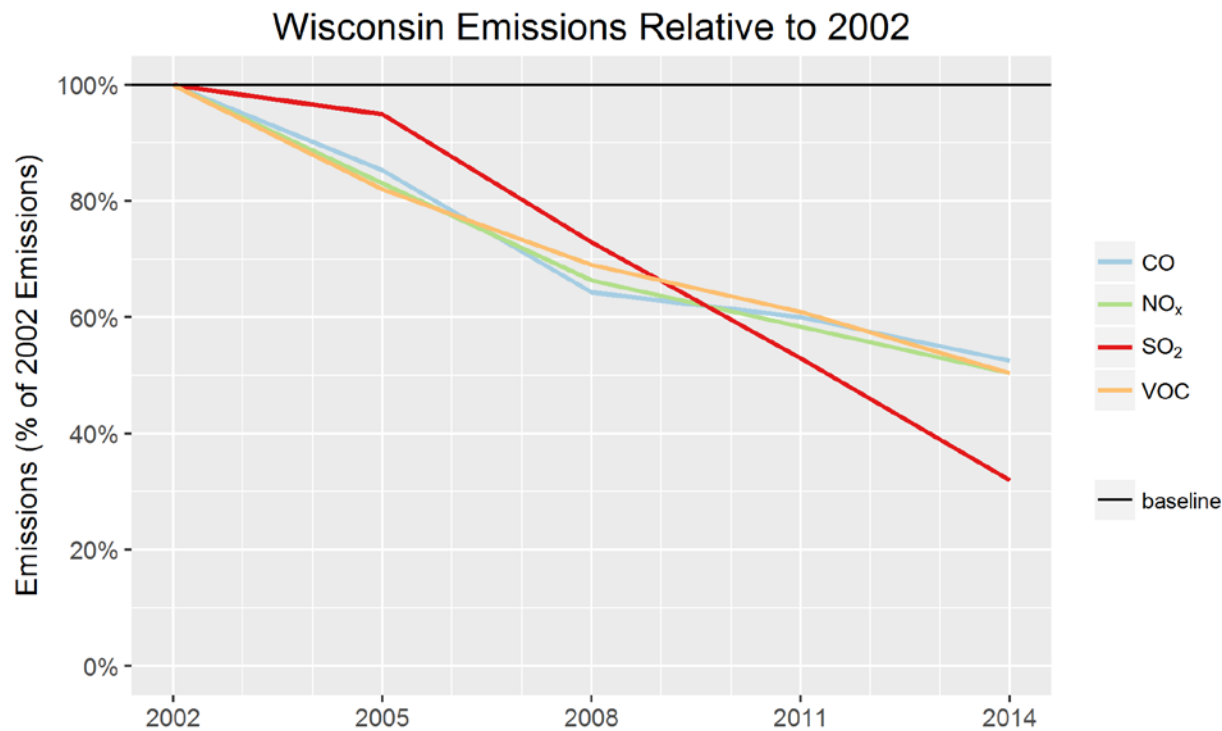
**Katie Praedel**  
Air Monitoring Section Chief

# Air Monitoring - Annual Network Plan

- Summary of key events
  - Wisconsin 2017 Act 159 required exclusion of the Sheboygan Kohler-Andrae air monitoring site from the “Wisconsin Department of Natural Resources 2019 Air Monitoring Network Plan”.
  - On June 21, 2018, EPA responded, noting the plan was not approvable as submitted due to the omission of the Sheboygan Kohler-Andrae monitor.
  - On June 25, a revised version that included Kohler Andrae was made available for public comment
  - On September 20, 2018 EPA approved Wisconsin’s revised Annual Network Plan.

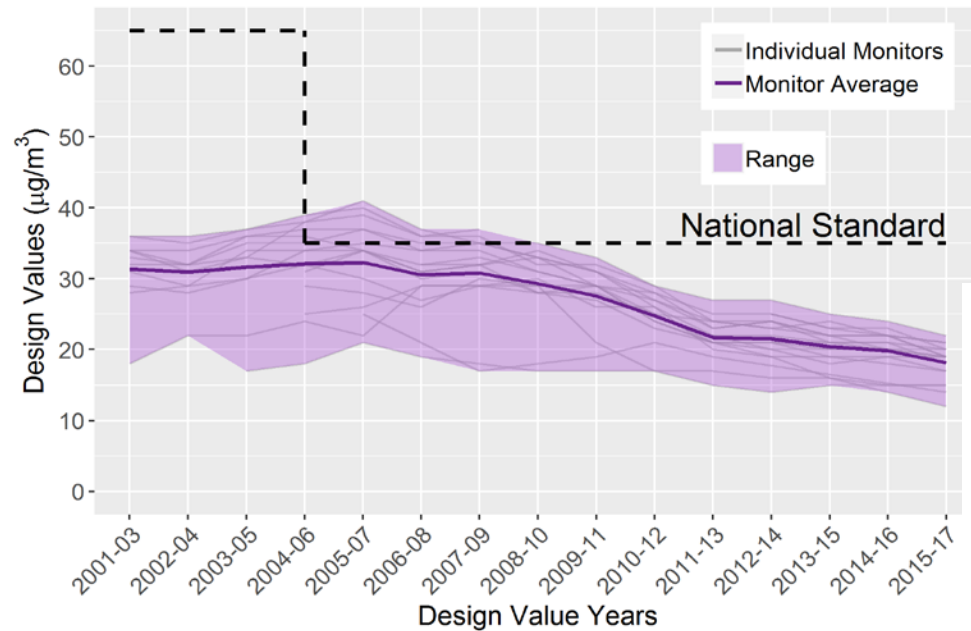
# Air Monitoring – Trends Report

- 2018 Wisconsin Air Quality Trends Report
  - Certified monitoring and emissions data and trends through 2017

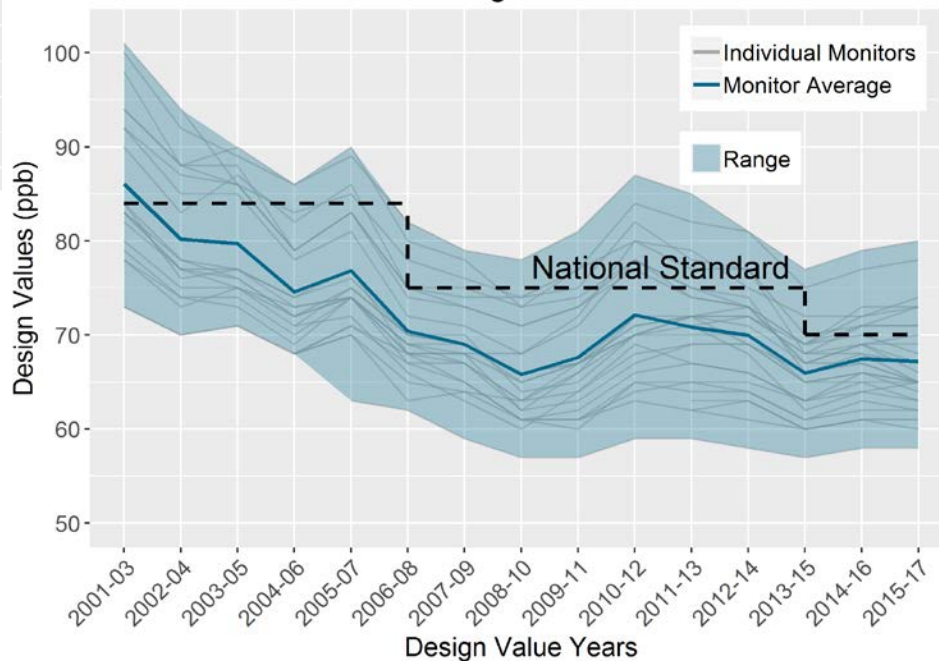


# Air Monitoring – Trends Report

## 24-Hour PM<sub>2.5</sub> Design Values in Wisconsin



## 8-Hour Ozone Design Values in Wisconsin



# Air Monitoring – Trends Report

## Highlights

- Wisconsin has seen dramatic reductions in emissions since 2002.
  - Emissions of ozone-forming pollutants (NO<sub>x</sub> and VOCs) have decreased 50 percent.
  - SO<sub>2</sub> emissions from point sources (such as power plants, paper mills, and other industrial facilities) decreased 87 percent.
  - Emissions of CO have decreased 47 percent.
- Monitoring data shows significant reduction in fine particle pollution.
- All counties in Wisconsin now monitor concentrations of fine particles well below the federal air quality standards and are considered to be “in attainment” by U.S. Environmental Protection Agency.

# Air Quality Sensors

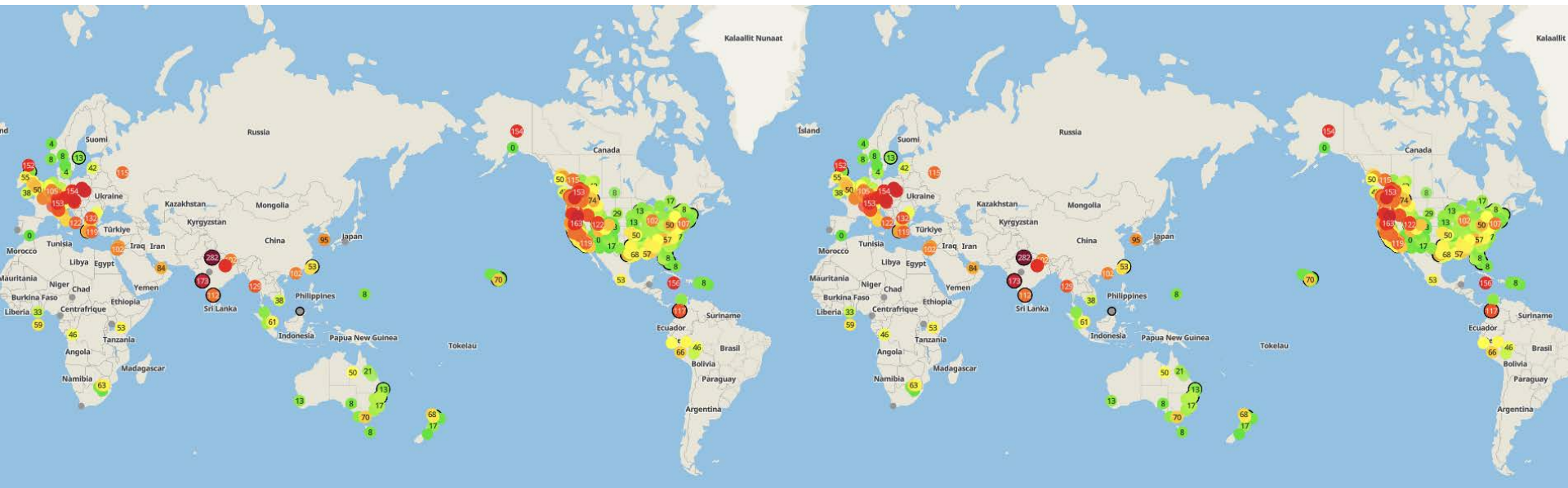
- Citizen science and low cost sensor technology rapidly progressing
- Lessons learned from the National Ambient Air Monitoring Conference
  - Tiered approach at evaluating sensor performance
  - Quality Assurance is critical
  - Certain sensor technologies are more advanced than others





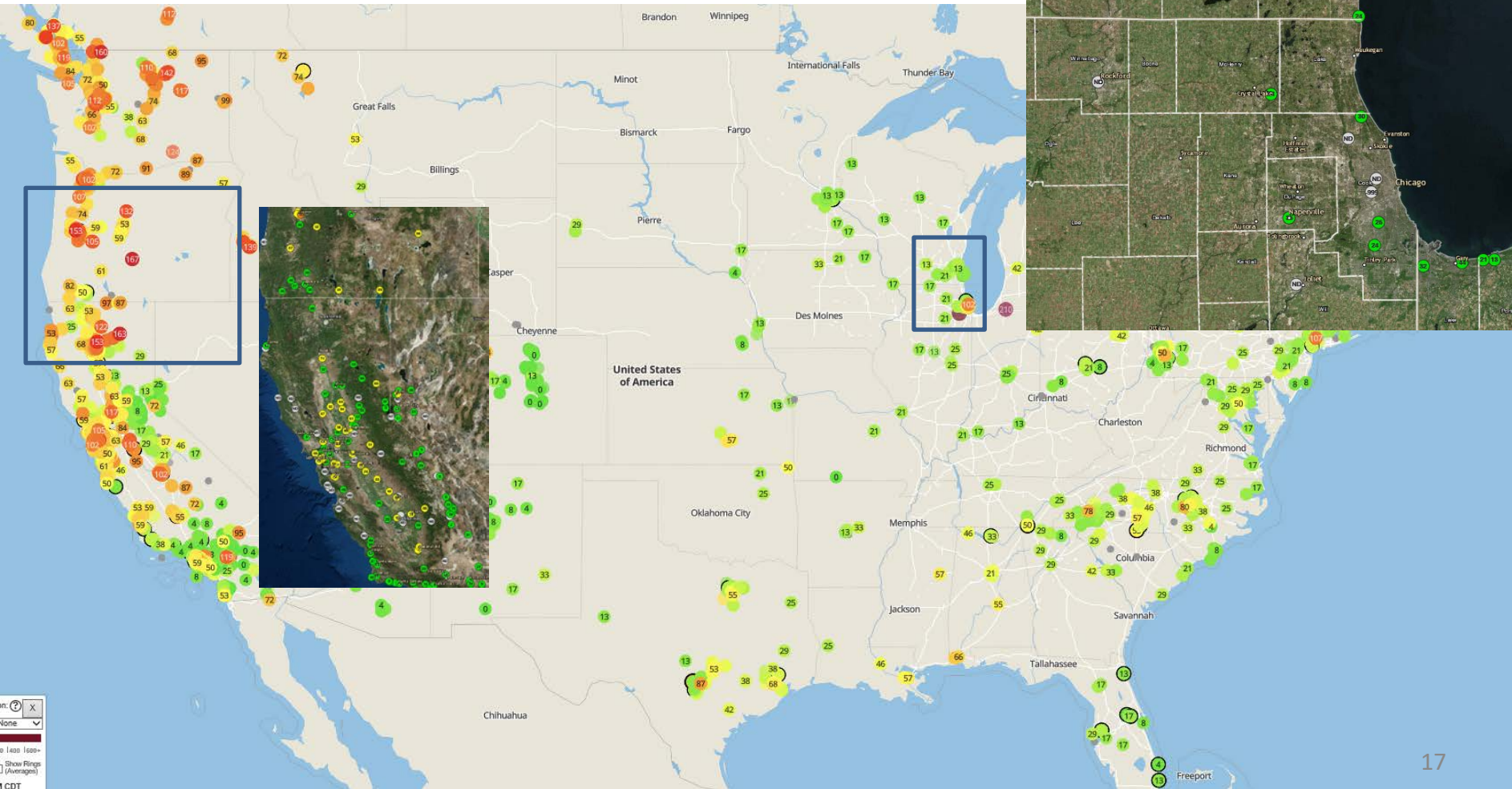
# Purple Air – PM2.5 Sensor

- Most popular sensor technology
- Real-time world-wide mapping available at: <https://www.purpleair.com/map>





# Purple Air compared to AQI



## Purple Air Sensor – what we know

- Purple Air sensors are biased 1-2% high
  - This bias increases as the concentrations increase
- A correction factor is critical to apply to the data when attempting to compare with regulatory monitors
- Correction factor may vary based on region, season or terrain
- Purple Air sensors are in Wisconsin and networks are rapidly expanding



# Purple Air Sensor Plan

## DNR Proposed Plan for Sensor management

- Purchase four Purple Air Sensors to gain familiarity with the monitor, network and data. Sensors will be collocated at four WI sites, including: Madison East, Green Bay East, Waukesha, LaCrosse.
- Utilize data to calculate a correction factor for the Purple Air sensors that aligns with WI regional conditions.
- The correction factor can be applied to Purple Air sensors used by citizen-based monitoring groups to generate more representative data.

# LON Recoding Update

**Maria Hill**

Compliance, Enforcement and Emission Inventory Section Chief

## LON Recoding

- EPA HQ has requested the states hold on any changes to identifying violation letters in ICIS
- EPA HQ is reviewing the LON issue with the regions
  - Considering additional coding options – currently only “warning letter” and “notice of violation”
  - Considering providing more guidance on which violation types equate to which letter type
- During the interim period, WI is using the LOI step more frequently

# **Act 70 Pilot Project Update**

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief



## Act 70 Pilot Project

The Act 70 Pilot Project is a collaboration between Brownfields, Green Tier and Air Management programs

*GOAL: Provide incentives for manufacturing facilities to locate on brownfields*

- Stakeholders met October 31, 2018
  - Group reviewed outreach materials
  - Update on the Green Tier Registration Permit
  - Report on Green Tier Charter Template Progress/Direction
  - WEDC Introduction & Involvement
  - Pilot Name!

## Act 70 Pilot Project

- Next Steps Stakeholders met October 31, 2018
  - Continue refining outreach materials
  - Continue refining Green Tier model charter and contract materials
  - Provide Type G Registration Permit for public comment
  - Develop Registration Permit outreach plan
- Next Meeting – January 18, 2019





# Member Updates

# Work Plan

**Andrew Stewart**  
Field Operations Director

# Work Plan

- Work planning is part of an approach that directs program activities over the course of the fiscal year.
  - aligns with agency & program priorities
  - focuses on understanding anticipated staff hours
  - adheres to budgets for the upcoming fiscal year
- In addition:
  - work planning identifies specific improvement projects
  - work plan outlines responsibilities & expectations of staff and supervisors

# Work Plan Process

- Air Management Team
  - Assess projects to continue into next FY
  - Identifies potential new projects/areas of focus
  - Identifies training & recruitment needs
  - Drafts & approves charters
  - Identifies & quantifies resources
  - Develops timelines
  - Gathers & assesses feedback
  - Finalizes projects, goals & expectations

## Work Planning Narrative

- Started using a couple of years ago
- Communicates agreements & expectations
- Increases transparency & understanding
- One of a number of products that come out of work planning effort
  - Performance measures
  - Project charters

# Ozone Update

**David Bizot**

Air Quality Planning and Standards Section Chief

**Katie Praedel**

Air Monitoring Section Chief

# Status of the 2018 Ozone Season

## Top Four 8-Hour Average Ozone Concentrations – as of **October 16, 2018**

Site	Concentrations (ppb)				2018 Critical values		Days at/above C.V.		Current 2016-2018 "design value"
	1st high	2nd high	3rd high	4th high	2008 std	2015 std	2008 std	2015 std	
Newport	80	76	75	75	82	67	0	6	73
Jefferson	78	72	68	68	92	77	0	1	68
Chiwaukee Prairie	92	88	87	79	69	54	13	56	79
Kenosha WT	84	84	81	80	76	61	6	26	77
Kewaunee	86	78	77	72	89	74	0	3	70
Manitowoc	93	90	81	76	83	68	2	10	73
Milwaukee SER	86	73	71	71	91	76	0	1	69
Bayside	86	78	77	73	81	66	1	9	73
Grafton	93	77	74	73	84	69	1	7	72
Harrington Beach	88	87	82	73	78	63	3	12	74
Racine Payne & Dolan	90	88	81	78	72	57	8	43	78
Beloit	80	69	69	68	92	77	0	1	68
Sheboygan Kohler Andrae	99	93	84	83	68	53	14	56	81
Sheboygan Haven	75	74	72	70	84	69	0	6	71
Lake Geneva	78	77	70	70	91	76	0	2	69

2008 NAAQS: 75 ppb  
2015 NAAQS: 70 ppb

Exceeds the 2015 NAAQS critical value or standard

Exceeds the 2008 NAAQS critical value or standard

*Note: Data have not yet been quality assured or certified and are subject to change. Values are only shown for monitors that exceeded their critical value at least once.*

# Draft Ozone 2016-18 Design Values

As-of  
10/16/2018

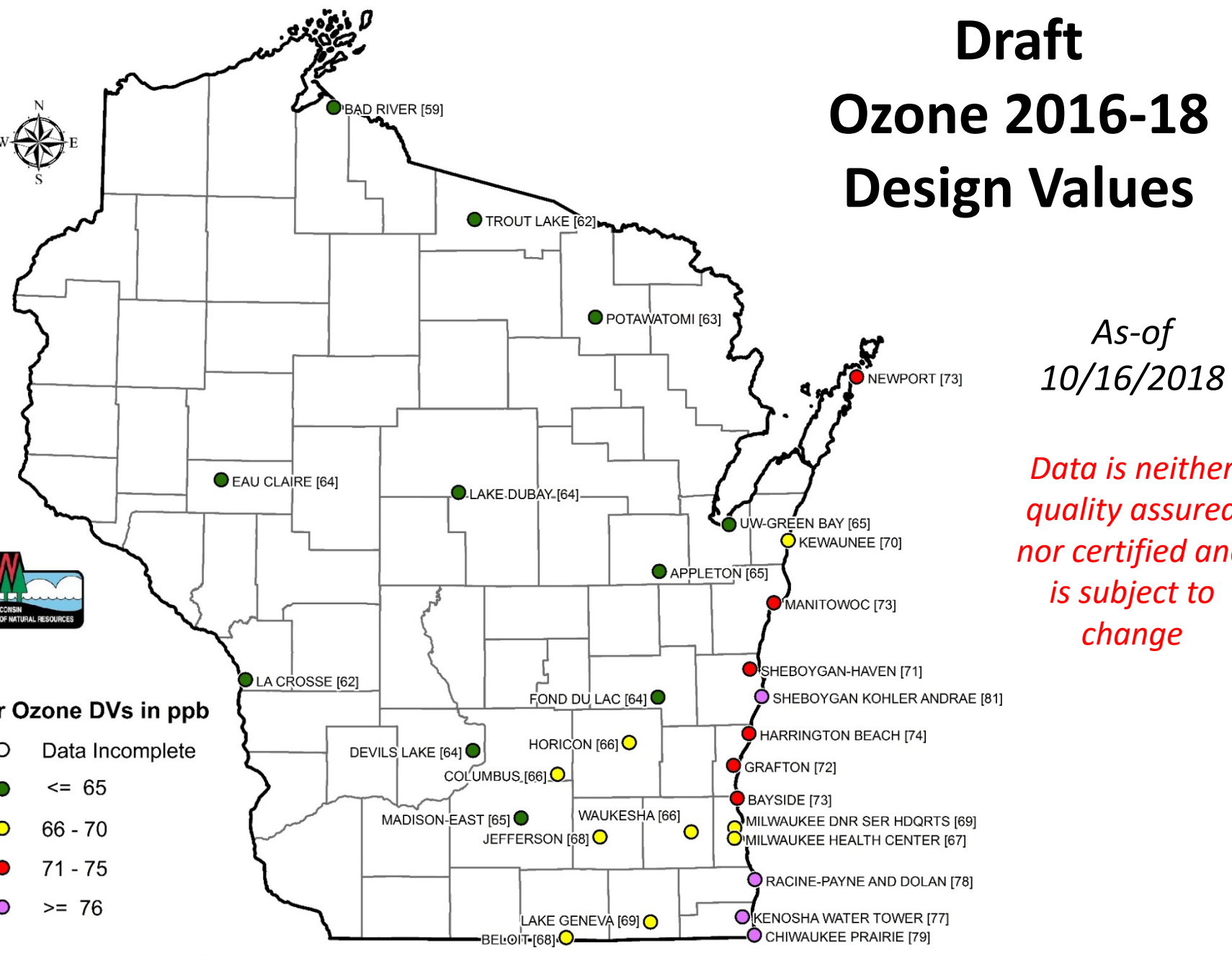
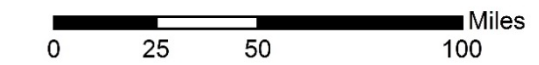
*Data is neither  
quality assured  
nor certified and  
is subject to  
change*



## 8-Hour Ozone DVs in ppb

- Data Incomplete
- ≤ 65
- 66 - 70
- 71 - 75
- ≥ 76

2008 Ozone NAAQS: 75 ppb  
2015 Ozone NAAQS: 70 ppb





## 2008 ozone NAAQS implementation

- Neither the partial Kenosha (part of 3-state Chicago area) or Sheboygan County nonattainment areas attained the 2008 ozone NAAQS by July 20, 2018.
  - Kenosha is expected to be reclassified to “serious” no later than January 2019 (final action).
  - Sheboygan is eligible for and is expected to be granted a one-year extension to attain, to July 20, 2019.
    - Based on draft 2018 data, area will not attain; bump-up to serious is expected in late 2019.
- Requirements for serious areas
  - NNSR offset ratio goes to 1.2:1 (from 1.15:1)
  - Major source threshold decreases to 50 tpy (from 100 tpy)
  - Attainment plan showing attainment by July 2021

# Emission Inventory Update

**Maria Hill**

Compliance, Enforcement and Emission Inventory Section Chief

# Emission Inventory

## 2017 Data to NEI (tons)

SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>10</sub>	VOC	CO	HAPs
30k	42k	18k	22k	34k	2.5k

## 2018:

- January FET seminars will include one-on-one assistance
- Skype assistance will be available
- Updates to Source Classification Codes (SCC); new, retired, revised
- PM<sub>2.5</sub> emissions reporting strategy will match permitting strategy

# **2019 Meeting Dates and Priority Topics**

**Gail Good**  
Air Program Director

## 2019 Meeting Dates

All meetings scheduled in G09, Natural Resources Building

- February 7, 2019
- May 23, 2019
- August 8, 2019
- November 7, 2019

# 2018 Priority Topics

- Permit streamlining
  - Rule making process
  - Improvements to other regulatory programs
- Ozone
  - 2008 and 2015 ozone NAAQS implementation
  - SIP submittals and redesignation requests
  - Maintenance areas in southeast Wisconsin
- PM<sub>2.5</sub> strategy implementation
- NO<sub>2</sub> NAAQS implementation
- Opportunities to provide more information and data to the public
  - Use of data viewer
  - Accessibility of details on permitted amounts, emissions levels, NOVs and LONs
- Long-term planning under the new federal administration
- Additional time-sensitive topics as relevant